

Comparisons of Job Characteristics

Focus Occupation: [Health and Safety Engineers, Except Mining Safety Engineers and Inspectors \(17-2111\)](#)

Associated Occupation: [Occupational Health and Safety Technicians \(29-9012\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 77

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation: Occupational Health and Safety Technicians (29-9012)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Education and Training	9.2	17.5	12.0	<< Extensive education and/or training may be required
Public Safety and Security	6.9	15.9	14.0	< Expanded education and/or training may be required
Building and Construction	4.0	13.6	10.3	<< Extensive education and/or training may be required
Engineering and Technology	5.7	13.4	18.9	>> Current knowledge level is likely more than sufficient
Law and Government	5.9	12.5	12.4	0 Current knowledge level may be sufficient
Chemistry	4.8	11.3	13.0	> Current knowledge level is likely sufficient
Physics	4.3	9.6	14.1	>> Current knowledge level is likely more than sufficient
Personnel and Human Resources	5.6	9.5	7.1	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation: Occupational Health and Safety Technicians (29-9012)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Active Listening	11.0	12.9	13.8	0 Current skill level may be sufficient
Reading Comprehension	10.7	12.6	14.8	> Skill level is likely sufficient
Complex Problem Solving	9.1	11.0	11.8	0 Current skill level may be sufficient

Writing	9.2	11.0	12.9	>	Skill level is likely sufficient
Operation Monitoring	6.6	8.5	7.9	0	Current skill level may be sufficient
Systems Analysis	6.5	8.2	10.6	>	Skill level is likely sufficient
Science	4.5	6.9	12.4	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)
Associated Occupation: Occupational Health and Safety Technicians (29-9012)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Oral Expression	12.4	14.8	14.7	0 Current ability level may be sufficient
Problem Sensitivity	11.1	12.9	15.3	> Current ability level is likely sufficient
Speech Clarity	10.2	11.8	11.6	0 Current ability level may be sufficient
Flexibility of Closure	7.8	9.6	10.9	> Current ability level is likely sufficient
Perceptual Speed	7.4	8.5	9.4	> Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 97

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)
Associated Occupation: Occupational Health and Safety Technicians (29-9012)

Work Activities	Exclusivity of Activity
Analyze effectiveness of safety systems or procedures	87
Communicate technical information	4
Evaluate engineering data	60
Evaluate manufacturing or processing systems	68
Examine engineering documents for completeness or accuracy	62
Explain complex mathematical information	30
Follow safe waste disposal procedures	50
Perform safety inspections in industrial, manufacturing or repair setting	32
Prepare safety reports	60
Prepare technical reports or related documentation	22
Record test results, test procedures, or inspection data	48
Test air quality, noise, temperature, or radiation	82
Understand engineering data or reports	48
Use hazardous materials information	35
Use knowledge of materials testing procedures	70
Use pollution control techniques	62

Use scientific research methodology	21
Use technical information in manufacturing or industrial activities	67
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 84

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)
Associated Occupation: Occupational Health and Safety Technicians (29-9012)

Tools and Technologies	Exclusivity
Cameras	2
Chemical evaluation instruments and supplies	10
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Electrical measuring and testing equipment	7
Fluid mechanics equipment	11
Gas analyzers and monitors	10
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory enclosures and accessories	17
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Metals and metallurgy and structural materials testing instruments	15
Pulmonary function testing and treatment products	24
Sampling equipment	12
Sound generating and measuring equipment	19
Spectroscopic equipment	10
Temperature and heat measuring instruments	6

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.